

## CLAIMS:

1. DC/DC converter for use in a decentralized power generation system comprising:- a converting component for DC/DC converting a direct current supplied by a power generating unit and for supplying a resulting converted direct current to a DC bus; and - a control component arranged to monitor a voltage at the outputs of said  
5 DC/DC converter and to cause said converting component to enter a short-circuit protection mode if said monitored voltage lies below a predetermined voltage threshold.
2. DC/DC converter according to claim 1, wherein said control component is further arranged to cause said converting component to exit an entered short-circuit  
10 protection mode again, if said monitored voltage raises above said predetermined voltage threshold.
3. DC/DC converter according to claim 1, wherein said converting component is adapted to output a converted direct current repeatedly only for a short  
15 duration at a time in said short-circuit protection mode.
4. DC/DC converter according to claim 1, wherein said converting component is adapted to output a current limited to a predetermined maximum value in said short-circuit protection mode.  
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5. DC/DC converter according to claim 1, further comprising a short-circuiting component for temporarily short-circuiting the outputs of said DC/DC converter whenever said outputs are to be free of voltage.
- 25 6. Decentralized power generation system comprising: - at least one power generating unit for generating a direct current; - a DC bus for making a supplied current available to a power receiving component; and - at least one DC/DC converter

connected between said at least one power generating unit and said DC bus, said DC/DC converter including a converting component for DC/DC converting a direct current supplied by said at least one power generating unit and for supplying a resulting converted direct current to said DC bus, and said DC/DC converter further including a  
5 control component arranged to monitor a voltage at the outputs of said DC/DC converter and to cause said converting component to enter a short-circuit protection mode if said monitored voltage lies below a predetermined voltage threshold.

7. Decentralized power generation system according to claim 6, further  
10 comprising at least one plug connection for connecting said at least one DC/DC converter to said DC bus, which plug connection comprises a short-circuiting component short-circuiting the outputs of said DC/DC converter automatically when said plug connection is opened and/or removing a short-circuit between the outputs of said DC/DC converter automatically when said plug connection is closed.

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8. Decentralized power generation system according to claim 6, further comprising a central short-circuiting component for generating a short-circuit on said DC bus.

20 9. Decentralized power generation system according to claim 8, further comprising a power receiving component connected to said DC bus and adapted to cause said central short-circuiting component automatically to generate a short-circuit on said DC bus in case of a detected failure situation in said decentralized power generation system.

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10. Method of operating a DC/DC converter in a decentralized power generation system, wherein said DC/DC converter is arranged between a power generating unit and a DC bus, said method comprising: - monitoring a voltage at the outputs of said DC/DC converter; - if said monitored voltage exceeds a predetermined  
30 voltage threshold, DC/DC converting a direct current received from said power generating unit and feeding a resulting converted current to said DC bus; and

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- if said monitored voltage lies below said predetermined voltage threshold, entering a short-circuit protection mode.

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